



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/533,801

05/04/2005

Torsten Werner

1509-1049

6078

466 7590 03/29/2007  
YOUNG & THOMPSON  
745 SOUTH 23RD STREET  
2ND FLOOR  
ARLINGTON, VA 22202

EXAMINER

PARSLEY, DAVID J

ART UNIT

PAPER NUMBER

3643

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

03/29/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/533,801

Applicant(s)

WERNER, TORSTEN

Examiner

David J. Parsley

Art Unit

3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14-20 and 23-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-20 and 23-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **Detailed Action**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2-21-07 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14, 16, 19-20, 24 and 27 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,771,451 to Woodring in view of U.S. Patent No. 4,969,397 to Gunther et al.

Referring to claim 14, Woodring discloses a shell case cartridge including a projectile – at 6, and having a cartridge blank seat – at the bottom of 12 proximate 16, receiving a

Art Unit: 3643

replaceable propellant cartridge blank – at 18, the cartridge blank comprising a cylindrical container – at 18, having a primer – at 28, and a propellant charge – at 32, contained therein – see figure 2, the cartridge blank being insertable into the cartridge blank seat and operative upon ignition of the propellant charge for expulsion of the projectile – at 6, from the cartridge case – at 12 – see figure 2, the cartridge blank having inserted in its front end one of a number of exchangeable inserts having a diameter sealing against the cylinder wall of the cartridge blank – see at 16,18 in figure 2 and – at 32,34 in figure 2, a passage – at 22 or 26, providing a constriction to flow of combustion gases expelled from the cartridge blank upon ignition – see figure 2, the insert defining a high-pressure chamber – at 20 or 24, within the cartridge blank – see figure 2, and separating the high-pressure chamber within the cartridge blank from an empty low-pressure chamber of substantially larger gas volume than the high pressure chamber and formed in the shell-case cartridge between the insert and the projectile – see at 14 in figure 2. Woodring does not disclose a passage through the insert. Gunther et al. does disclose a passage – at 30 through the insert – at 32 – see figures 1a-1c. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Woodring and add the insert with passage of Gunther et al., so as to allow for more uniform introduction of propellant gases into the projectile.

Referring to claim 16, Woodring as modified by Gunther et al. further discloses the insert – at 32, has a cylindrical portion – at the center portion of 32, insertable into the forward end of the cartridge – see at 20,21 in figure 1a of Gunther et al., the outer diameter of the portion sealing against the cartridge – see figure 1a of Gunther et al., and a cylindrical portion of lesser diameter – at the lower portion of 32, protruding therefrom and dimensioned to be received in the opening

Art Unit: 3643

– see proximate 20 in figure 1 of Gunther et al., through a wall of the cartridge seat – at the top of 32 – see figure 1 of Gunther et al., a shoulder radially extended between the portions – see connecting the different diameter portions of 32 in figure 1a of Gunther et al., and an axial passage – at 30, going therethrough – see figures 1a-1c of Gunther et al., the diameter of which is dimensioned for delaying the exiting combustion gases – see at 32 in figures 1-1c of Gunther et al. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Woodring and add the insert with passage of Gunther et al., so as to allow for more uniform introduction of propellant gases into the projectile.

Referring to claims 19, Woodring as modified by Gunther et al. further discloses a membrane – at 34, is attached to an inner end of the insert sealing the passage – see at 34 in figure 2 of Woodring.

Referring to claims 20, 24 and 27, Woodring as modified by Gunther et al. further discloses that the insert – at 18, is initially depressed into the cartridge – at 12, only to a depth that gives the cartridge an oversized axial length with respect to the cartridge seat – at the bottom of 12 – see figure 2 of Woodring.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Woodring as modified by Gunther et al. as applied to claim 14 above, and further in view of U.S. Patent No. 3,675,576 to Whitney.

Referring to claim 15, Woodring as modified by Gunther et al. does not disclose a dismountable rear portion of the shell-case cartridge is connectable to a front portion through a threaded connection, a rear portion of the cartridge blank having a reduced diameter receivable in a through hole in connected position. Whitney does disclose a dismountable rear portion – at

Art Unit: 3643

11, of the shell-case cartridge – at 10-12, is connectable to a front portion – at 12, through a threaded connection – see at 16,18 in figures 1-5, a rear portion of the cartridge blank – at 13, having a reduced diameter receivable in a through hole – at 15 in connected position – see figures 1-5. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Woodring as modified by Gunther et al. and add the dismountable rear portion of the shell casing, so as to allow the casing to be easily opened to gain access to the components on the inside of the casing.

Claims 17-18, 22-23 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woodring as modified by Gunther et al. as applied to claim 14 above.

Referring to claim 17, Woodring as modified by Gunther et al. does not disclose the insert is formed from a material of less hardness than the cartridge-seat to be deformable for sealing contact with the forward wall of the cartridge seat. However, it is deemed that the device of Woodring as modified by Gunther et al. is capable of performing equally as well with the insert formed from a material of less hardness than the cartridge seat in that the insert – at 18 of Woodring is not integral with the casing – at 12 as seen in figure 2 of Woodring. Therefore it would have been obvious to one of ordinary skill in the art to take the device of Woodring as modified by Gunther et al. and add the insert being made of a material of less hardness than the cartridge seat, so as to allow for the device to be easily manufactured/assembled.

Referring to claim 18, Woodring as modified by Gunther et al. does not disclose the insert is made of copper, copper alloy, aluminum or other light metal. However, it is deemed that the device of Woodring as modified by Gunther et al. is capable of performing equally as well with the insert formed from copper, copper alloy, aluminum or other light metal. Therefore it

Art Unit: 3643

would have been obvious to one of ordinary skill in the art to take the device of Woodring as modified by Gunther et al. and add the insert being made of copper, copper alloy, aluminum or light metal, so as to allow for the device to be easily manufactured/assembled.

Referring to claims 22-23, Woodring as modified by Gunther et al. further discloses a membrane – at 34, is attached to an inner end of the insert sealing the passage – see at 34 in figure 2 of Woodring.

Referring to claims 25-26, Woodring as modified by Gunther et al. further discloses that the insert – at 18, is initially depressed into the cartridge – at 12, only to a depth that gives the cartridge an oversized axial length with respect to the cartridge seat – at the bottom of 12 – see figure 2 of Woodring.

### ***Response to Arguments***


3. Applicant's arguments with respect to claims 14-20 and 22-27 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. Parsley whose telephone number is (571) 272-6890. The examiner can normally be reached on Monday-Friday from 8am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on (571) 272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
David Parsley  
Patent Examiner  
Art Unit 3643